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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,223	12/19/2001	Francisco J. Sotillo	859.38	4358

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EXAMINER

KOHNER, MATTHEW J

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SW

Office Action Summary	Application No.	Applicant(s)	
	10/026,223	SOTILLO, FRANCISCO J.	
	Examiner	Art Unit	
	Matthew J Kohner	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,5-8 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 9-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claim 1 recites the limitation of “adding a sufficient amount of one, of one or more surfactants, of one or more organic polymers and of a combination of said surfactants and organic polymers,” This is confusing as written, since one of ordinary skill in the art would not be able to tell what is being added. For example, is it all three that are being added? The word “and” suggests all three (surfactants, organic polymers and a combination of both) are added. However, the beginning of the phrase, “adding a sufficient amount *of one* (emphasis added)” suggests only one of the three is added. Therefore, Claim 1 must be rewritten to particularly and clearly point out what applicant regards as his invention.

Regarding claims 5 and 12 the phrase "and combinations thereof" renders the claim(s) indefinite because the claim includes elements not actually disclosed (those encompassed by "and combinations thereof"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Regarding claims 6 and 13 the phrase "and their related products" renders the claim(s) indefinite because the claim includes elements not actually disclosed (those encompassed by

Art Unit: 3653

"and their related products"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4,377,472 to Allen.

Allen discloses adding a surfactant to a phosphate slurry which causes the phosphate ore particles to settle and then collected (Col. 1, lines 17+).

Allen does not specifically disclose directing the collected phosphate particles to a beneficiation process, but it would be obvious to one of ordinary skill in the art.

Claims 1, 5-7, 8, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4,585,629 to Kremer et al.

Kremer discloses a method of reducing the viscosity of the phosphate ore slurry by adding compositions to the water used in the making the slurry. Further, it is well known in the art, that surfactants can be added to the slurry to reduce viscosity (see e.g. Col. 1, lines 41+, where Kremer discusses several prior art methods).

Art Unit: 3653

Further, Kremer discloses that the additive-containing slurry is subjected to convention beneficiation operations (Col. 3, lines 34+).

Kremer does not disclose adding the surfactants to the slurry itself. Rather, he adds them to the water which is used to make the slurry. However, he does note in the disclosure that the viscosity-reducing compositions have been added at several stages during the process (see e.g. US Patent No. 4,177,243 to Schwartz who adds the agent to the slurry itself).

Kremer acknowledges that, although it is not his preferred method, the agents could have been added to the slurry itself (Col. 3, lines 40+). Therefore, it would have been obvious to one of ordinary skill in the art to add compositions such as those recited in Kremer directly to the slurry itself.

In regard to claims 5, 6, 12 and 13 the above compositions include organic acids, mineral acids, monovalent inorganic salts and polyvalent inorganic salts.

In regard to claim 7 and 14, these desliming units are well known in the art. Therefore it would be obvious to one of ordinary skill in the art to use such desliming units.

Claims 1, 5, 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz.

Schwartz discloses adding naphthaleneneformaldehyde sulfonate to a phosphate rock slurry to reduce the viscosity of the slurry (See Col. 1, lines 50+). Therefore, it would be obvious to one of ordinary skill in the art that such a surfactant used in the desliming process would cause the fine phosphate particles to settle for collection and be directed to a beneficiation process.

Allowable Subject Matter

Claims 2-4 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

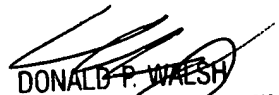
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kohner whose telephone number is 703-305-8496. The examiner can normally be reached on Mon-Fri 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306-4173. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.


Matthew J. Kohner
Examiner
Art Unit 3653

MJK
September 5, 2003


DONALD P. WALSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600